

Claims

1       1. A method of inducing tolerance in a recipient  
2 mammal of a first species to a tissue obtained from a mammal  
3 of a second species, which tissue expresses an MHC antigen,  
4 said method comprising

5       inserting DNA encoding an MHC antigen of said second  
6 species into a bone marrow hematopoietic stem cell from  
7 said recipient mammal, and

8       allowing said MHC antigen encoding DNA to be  
9 expressed in the recipient.

1       2. The method of claim 1, wherein said cell is  
2 removed from said recipient mammal prior to said insertion  
3 and returned to said recipient mammal after said insertion.

1       3. The method of claim 1, wherein said recipient is  
2 a human.

1       4. The method of claim 1, wherein said mammal is a  
2 swine.

1       5. The method of claim 4, wherein said swine is a  
2 miniature swine.

1       6. The method of claim 1, wherein said DNA is  
2 obtained from the individual mammal from which said tissue  
3 is obtained.

1       7. The method of claim 1, wherein said DNA is  
2 obtained from an individual mammal which is syngeneic to the  
3 individual mammal from which said tissue is obtained.

1       8. The method of claim 1, wherein said DNA is  
2 obtained from an individual mammal which is MHC identical to  
3 the individual mammal from which said tissue is obtained.

1       9. The method of claim 1, wherein said DNA  
2 comprises an MHC class I gene.

1       10. The method of claim 1, wherein said DNA  
2 comprises an MHC class II gene.

1       11. The method of claim 1, wherein said DNA is  
2 inserted into said cell by transduction.

1       12. The method of claim 11, wherein said DNA is  
2 inserted into said cell by a retrovirus.

1       13. The method of claim 12, wherein said DNA is  
2 recipient is a human and said retrovirus is a Moloney-based  
3 retrovirus.

1       14. A method of inducing tolerance in a recipient  
2 mammal to a tissue obtained from a donor mammal of the same  
3 species, which tissue expresses an MHC antigen, said method  
4 comprising

5       inserting DNA encoding an MHC antigen of said donor  
6 into a bone marrow hematopoietic stem cell from said  
7 recipient mammal, and

8       allowing said MHC antigen encoding DNA to be  
9 expressed in the recipient.

1       15. The method of claim 14, wherein said cell is  
2 removed from said recipient prior to said insertion and  
3 returned to said recipient after said insertion.

1               16. The method of claim 14, wherein said recipient  
2 is a human.

1               17. The method of claim 14, wherein said DNA  
2 comprises an MHC class I gene.

3               18. The method of claim 14, wherein said DNA  
4 comprises an MHC class II gene.

1               19. The method of claim 14, wherein said DNA is  
2 inserted into said cell by transduction.

1               20. The method of claim 19, wherein said DNA is  
2 inserted into said cell by a retrovirus.

1               21. The method of claim 20, wherein said retrovirus  
2 is a Moloney-based retrovirus.